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RTI90-320 T2 HD UK

Terrestrial High Definition Digital Television Recorder

User Manual

Sagemcom

High Definition Digital Television Recorder

Congratulations!

This High Definition Digital Television Recorder (DTR) is an innovative product from the latest generation of Sagemcom digital TV recorders, dedicated to Digital Terrestrial Television. Equipped with a silent hard disk drive, it allows easy reception and recording of digital programmes, including those broadcast in High Definition.

Once you have connected your recorder and performed the initial installation, you will be able to watch and enjoy all the FREEVIEW channels available in your geographical area. Thanks to its embedded 'over the air' upgrade feature, you can update your recorder with new features or services when they become available.

The Sagemcom recorder follows a continuous development strategy. Therefore, we reserve the right to make changes and improvements to the product described in this user manual without any prior notice.

This product complies with EMC directive 89/336/EEC.

CE Marking :
The CE marking certifies that the product complies with the essential requirements of the Directive 1999/5/EC concerning radio equipment and telecommunication equipment, and of Directives 2006/95/EC concerning safety and 2004/108/EC concerning electromagnetic compatibility, defined by the European Parliament and Council to reduce electromagnetic interferences and protect the health and safety of users.

The CE marking also certifies that the product complies with the following harmonised standards: EN60065, EN55013, EN55020, EN61000-3-2, EN61000-3-3.

The CE declaration of conformity can be viewed in the support section of the Sagemcom site www.sagemcom.com, or it can be obtained from the following address:

Sagemcom - Customer relations department
250 route de l'Empereur
92848 Rueil-Malmaison Cedex - FRANCE

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This "HD TV" Television Receiver complies with the "HD TV" Minimum Requirements. The "HD TV" Logo is a trademark of EICTA. HDMI, HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

DTS is a registered trademark of Digital Theater Systems, Inc.
The FREEVIEW and FREEVIEW+HD words and logos are trademarks of DTV Services Ltd and are used under licence.

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are registered trademarks of Dolby Laboratories Inc.

Telephone number for your local store is on your till receipt.
Should your Store be unable to help, please check the following Websites for
Digital Television Terrestrial signal coverage:

http://www.dtg.org.uk/consumer/freeview.html
http://www.freeview.co.uk
http://www.bbc.co.uk/digital

Please note: In order to receive digital signal of good quality you may need an antenna upgrade.

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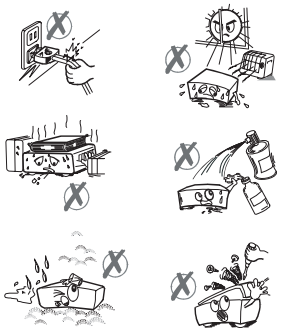
1. Safety recommendations

Use of the recorder is subject to safety measures designed to protect users and their environment.

Where to put your recorder?

In order to guarantee the correct operation of your recorder, you must:

- place it indoors to protect it from lightning, rain, and sun rays,
- place it in a dry and well ventilated area,
- keep it away from heat sources such as radiators, candles, lamps, etc.
- protect it from dampness, place it on a flat surface from where it will not fall and is out of reach of the children,
- do not place anything on top of your recorder (as it would restrict ventilation): the ventilation slots located on the casing prevent your recorder from overheating. If you place the recorder in a compartment, leave a space of at least 10 cm on each side and 20 cm on the front and back of the recorder,
- connect it directly to the mains with the provided cords, the socket must be near the recorder and easy to access. The use of an extension cable (with multi-points) is not recommended.



Warnings and safety instructions

NEVER OPEN THE RECORDER OR THE POWER SUPPLY UNIT! YOU RISK GETTING AN ELECTRIC SHOCK.

•Use only the power supply unit supplied with the recorder to connect it to the mains. Other practice may be dangerous.

•As a precaution, in case of danger, the power supply unit acts as a disconnecting mechanism for the 230V power supply. That is why it is imperative that you connect the recorder to a power outlet located nearby and easily accessible.

•You must imperatively connect the power supply unit to the recorder before connecting the power supply unit to the power socket.

- To avoid short-circuits (fire or electrocution hazard), do not expose your recorder to dampness. Do not place any object containing liquid (vase for example) on the appliance. The recorder must not be splashed with liquid. If liquid is spilled onto the recorder, unplug it immediately from the mains and consult your supplier.
- Take care not to allow liquids or metal objects to enter the recorder through the ventilation slots.
- Avoid reconnecting the recorder after it has been subjected to large changes in temperature.
- The recorder must be disconnected from mains supply (from the power outlet or rear panel) before any modification of connection between TV, VCR or antenna.
- In the event of a storm, it is advisable to unplug the antenna. Even if the recorder and the television set are disconnected from the power supply, lightning can still damage them.
- Only personnel approved by the manufacturer can repair the recorder. Failure to comply with these safety precautions will invalidate the guarantee.

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Batteries

Batteries are easily swallowed by young children. Do not allow young children to play with the remote control.

To avoid damaging the remote control, only use identical batteries or batteries of an equivalent type. The batteries provided are not rechargeable.

Interference

Do not place the recorder near appliances that may cause electromagnetic interferences (for example loudspeakers). This could affect recorder operation and distort the picture or sound.

Hard disk

This unit contains a hard disk drive. Please wait for the unit to go into standby mode before unplugging and moving it.

USB Storage devices

Please wait until the recorder is in standby mode before disconnecting your storage devices. Else, you could lose data or damage your storage device.

Cleaning the recorder

The outer casing of the recorder can be cleaned with a soft and dry cloth. Do not use any type of abrasive pad, scouring powder or solvents, such as alcohol or turpentine, as they could damage the surface of the recorder.

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2. Environment

Preservation of the environment is an essential concern of the manufacturer. The desire of the manufacturer is to operate systems observing the environment and consequently it has decided to integrate environmental performances in the life cycle of its products, from manufacturing to commissioning, use and elimination.

Meaning of logos present on the product or its packaging

The crossed-out dustbin sign stuck on the product or its accessories means that at the end of its life, the product is subject to selective collection and must not be thrown away in unsorted household waste.

The looped arrow sign means that the packaging may be recycled and must not be disposed of with household waste.

The green logo means that a financial contribution is paid to an approved national organisation to improve packaging recovery and recycling infrastructures.

The logo with three arrows shown on the plastic parts means that they may be recycled and that they must not be disposed of with household waste.

Product recycling and disposal

To facilitate recycling, please respect the sorting rules set up locally for this kind of waste.

If your product contains batteries, they must be disposed of at appropriate collection points.

European regulations ask you to dispose of products belonging to the family of electrical and electronic equipments ( ) selectively:

- At the collection points made available to you locally (drop-off centre, selective collection, etc.),
- At sales points in the event of the purchase of similar equipment.

In this way you can participate in the re-use and upgrading of Electrical and Electronic Equipment Waste, which can have an effect on the environment and human health.

European Directive on Waste Electrical and Electronic Equipment (WEEE)

In the context of sustainable development, the reduction of wastes to be eliminated by reusing, recycling, composting and energy recovery is strongly advised.

In order to comply with this directive which is applicable to EEEs sold after 13/08/2005, your recorder will be taken back free of charge and recycled by the distributor of the EEE within the limits of the quantity and types of equipment bought from them. These appliances which contain substances potentially dangerous to human health and the environment will be recycled.

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Directive on the Restriction of use of certain hazardous substances in electronic equipment (ROHS)

Your recorder along with the batteries supplied comply with the directive relating to the RoHS – dangerous materials such as lead, mercury or cadmium are not used. This avoids environmental hazards and any risks to the health of personnel at the recycling centres. The batteries of the remote control can be removed simply.

Note: When the batteries of the remote control are worn out, please dispose of them at a collection point and not with household waste.

Electrical consumption of the recorder

To reduce the consumption of your recorder, you are recommended to place it in standby mode when not in use. We recommend that you turn off the recorder or unplug it from the mains if you will not be using it for a prolonged period of time.

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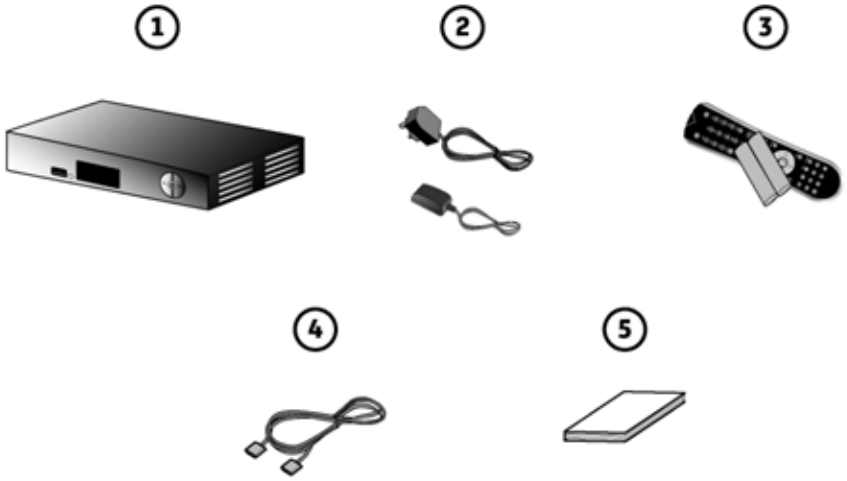
3. Product Overview

Your High Definition Digital Television Recorder allows you to watch and record FREEWIEW channels.

Package contents

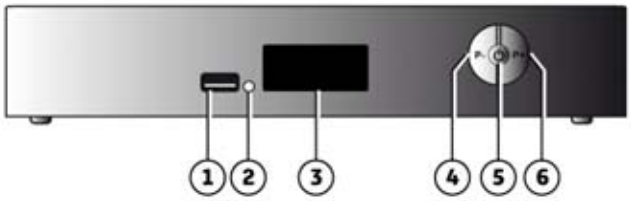
Your new equipment includes:



Item	Description
1	1 High Definition Digital Television Recorder (DTR)
2	1 power supply unit (power adaptor and power cord)
3	1 remote control with 2 batteries (AAA)
4	1 HDMI lead for connection to an High Definition TV set
5	this user manual

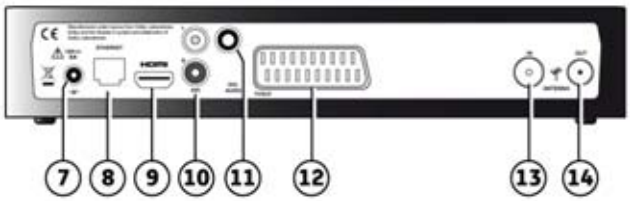
High Definition Digital Television Recorder

Front panel of the Recorder



Item	Description	Item	Description
1	**USB port** (for future use)	4	**P-** • Change channel (Down)
2	**Status indicator**	5	**Standby button** • Put the recorder in standby mode/Wake up the recorder from standby mode (press and let go) • Restart the recorder (press and hold for 5 sec.)
3	**Digital display** • Shows the current time when the recorder is in standby. • Shows the programme number when the recorder is on. • Shows hard disk activity (recording in progress, programme playback, ...)	6	**P+** • Change channel (Up)

Rear panel of the Recorder



Item	Description	Item	Description
7	**Power supply unit connector**	11	**Digital audio connector** (S/PDIF)
8	**Ethernet port** (for future use)	12	**SCART connector** (to TV)
9	**HDMI Digital video audio connector**	13	**Antenna input**
10	**Analogue audio connectors** (to hi-fi unit)	14	**Antenna output**

Remote control

Key(s)	Description
1	Put the recorder in standby mode/Wake up the recorder from standby mode.
2	Access channels and various on-screen options
3	Display the electronic programme guide (EPG)
4	Turn the sound off/on
5	Increase or decrease the audio volume
6	Access menus
7	Move in a page, a menu…
8	Display the channel list, confirm a selection
9	Go back to the previous channel, screen or mode
10	Select subtitles
11	This key is by default deactivated. Becomes active when Audio description is activated in your User Preferences, and allows then to set Audio description on the current programme (see **Setting your language options**, page 31).
12	Display programme information and options
13	Change channel
14	Video resizing (if TV set connected via HDMI).
15	On-screen options (MHEG, Teletext pages and menu)
16	Access the recording list
17	Exit a screen, a mode
18	Display Teletext pages when available
19	Switch from TV mode to Radio mode
20	Skip backward / Rewind / Fast forward / Skip forward
21	Stop / Play / Pause
22	Launch immediate recording, Schedule a recording from the electronic programme guide (EPG)
Undocumented keys are not used on this product.	

Batteries

The remote control needs two batteries (AAA) to operate. The drawing in the battery compartment indicates how to install them. The batteries provided are not rechargeable.

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4. Connections

Before installing your recorder:

- Please check that the delivery is complete (see **Package contents**, page 9).
- Please ensure that the appliances to be connected together (recorder, TV set, VCR…) are unplugged before making any connections.
- Please ensure that Digital Terrestrial Television (DTT) is available in your area.

Connection to the terrestrial antenna

Very often to get the best reception, you may simply need to adjust your antenna. Alternatively, you can connect an indoor antenna to your system. For more information, please contact your specialised distributor.

Standard outdoor antenna

Preferably use an outside roof antenna that is designed to receive UHF channels (21 to 69). However:

- if your building is equipped with an old antenna model, digital channels may be difficult or even impossible to receive. The problem can only be resolved by changing the antenna.
- if your building is equipped with a common antenna which contains selective filters devised for analogue channels, reception will most probably not work correctly. In this case, you will have to contact the administrator of the building.
- some antennas directed towards an analogue TV transmitter must be re-adjusted towards a digital TV transmitter. If you encounter reception problems, you can also try placing the antenna at different heights.

Indoor antenna

In ideal reception conditions, this type of antenna is sufficient. Here, however, are some useful tips:

- use an antenna designed to receive channels 21 to 69.
- install the antenna close to the window and direct it towards the digital TV transmitter.
- if possible, use an antenna with an amplifier. The recorder can provide remote power supply to your indoor antenna (see **Antenna Signal Information**, page 38).

Connection to the antenna

1. Plug the antenna cable (not supplied) into the **ANTENNA IN** input connector on your recorder.
2. You can connect the RF output connector of your recorder to the antenna input of the television set or VCR/DVD recorder (cable not supplied).

Connection to the TV set

Connection to a High-Definition television set using a HDMI lead

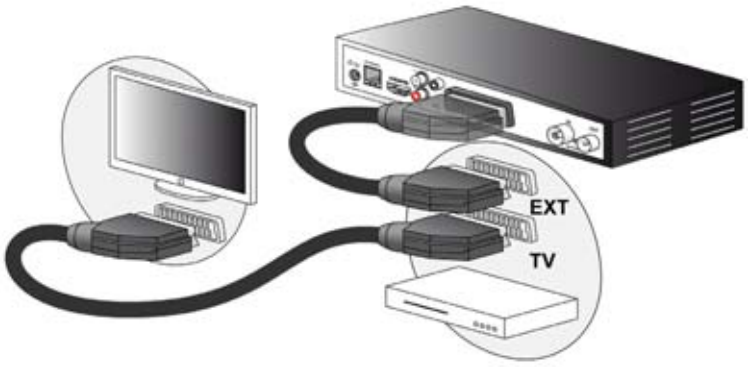
1. To take advantage of High Definition picture quality, you must connect the **HDMI** connector of your recorder to the HDMI connector on your television set (cable supplied).
2. To connect other devices to the recorder (VCR, home theatre cinema...), refer to the following pages.
3. Connect the power adaptor to the power cable. Then, connect the power cable into the 12V connector on the recorder.
4. Plug the power cord into the wall socket.

Connection to a Standard-Definition television set

1. You must connect the television set to your recorder using a SCART connector (not supplied).
2. To connect other devices to the recorder (home theatre cinema...), refer to the following sections.
3. Connect the power adaptor to the power cable. Then, connect the power cable into the 12V connector on the recorder.
4. Plug the power cord into the wall socket.

Connection to a VCR/DVD recorder

See the diagram below to connect your recorder to a VCR/DVD recorder.



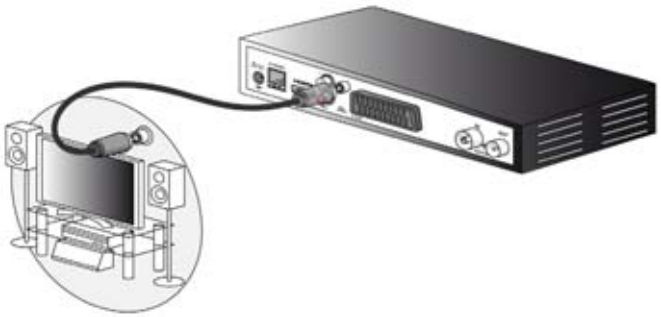
Note	
	If your VCR/DVD recorder has more than one SCART connector, choose the TV or EXT1 socket.

Connection to a home theatre system

Some programmes are broadcast with a high quality multichannel digital sound. The connection of your recorder to a home theatre system will give you a cinematic surround sound experience when watching these programmes.

This can easily be done by connecting with a coaxial cable (not supplied) the **DIGITAL AUDIO** output of your recorder to the digital audio coaxial input of your home theatre amplifier

Dolby® Digital Plus is one of the latest innovations of Dolby Laboratories in high quality digital audio. Compatible with Dolby Digital systems, it addresses the expectations of most demanding viewers, and is scalable to the diverse world of content delivery, such as, for instance, High Definition TV broadcast.

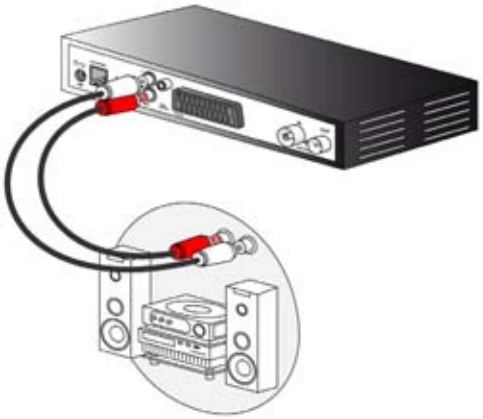


Note

For more information, please visit the following website:
http://www.dolby.com/consumer/setup/index.html

Connection to a hi-fi unit

To make the most of the digital quality sound and listen to radio channels with the TV turned off, just connect the right and left audio outputs of the recorder to the auxiliary input of your hi-fi system (cable not supplied).



5. First installation

Once the recorder is physically connected, you need to go through the setup procedure to get your FREEVIEW channels.

1. Switch on your TV.
2. Press the **Standby** button on your remote control to wake the recorder up from standby mode.
3. The first installation screen should appear.

Language Selection

4. Select your language with the ◀ or ▶ key.

   Press OK to continue.

Country Selection

5. Select your country with the ◀ or ▶ key.

   Press OK to continue.

Video Settings

6. Select the settings better suited to your needs.
   Use the up and down keys to highlight a setting, use the left and right arrows to select a value.
   - **HDMI Output:** If your TV set is connected to the recorder with an HDMI cable, select YES. If you have a standard TV set, select NO.
   - **TV Format**: select the display mode for your TV: 16/9 (widescreen TV), 4/3 (Traditional TV) or Auto (programme format will be respected - 16:9 or 4:3).
   - **TV SCART**: select the video standard (RGB, CVBS) for the TV output.

     Press OK to continue.

Parental code

7. Enter a parental four-digit code using the remote control (0000 is not accepted).

8. Enter the same code to confirm it.

9. To hide adult genre channels, select HIDING ADULT CHANNELS and set it to ENABLE.

Press OK to continue.

Note

The parental code is used to lock access to the recorder and channels. Make sure you remember it for future use. You can change the code at any time (see **Changing your Parental code**, page 33).

Channel Search

10. The recorder automatically searches for available FREEVIEW TV and radio channels.

11. Press OK to save the channels found.

Note

If the recorder cannot find any channels, you will be asked to adjust the antenna. Select YES to view the reception strength and quality of the antenna signal. Check the antenna cable connections.

When the signal level is satisfactory, press to resume the installation.
If the level and quality of reception remain insufficient, contact your antenna installer.

You recorder is now set. You can start watching and enjoying all your FREEVIEW channels.

Should any problem that prevents you from completing the installation arise, please contact your retailer or the Sagemcom Hotline.

UK Hotline: 08450 900 316

6. Everyday use

Selecting a TV channel

Using the keys PROG+ and PROG-, or keys 0-9

Press **PROG+** or **PROG-** on your remote control to change channel or enter its number on the numeric keypad to switch to the channel you want.

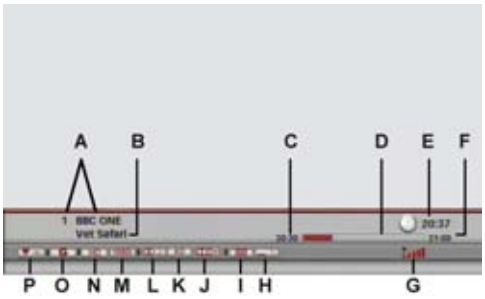
Using the channel list

Press OK to display the channel list, select your channel then press OK again to confirm.

Programme information banner

Each time you switch channels, the information banner appears onscreen. You can also display it by pressing i once while watching a programme.

You can set the display time of the information banner in your User Preferences (see **Setting your User Preferences**, page 32).



- **A :** Channel number and name
- **B :** Name of programme
- **C :** Start time of programme
- **D :** Elapsed time
- **E :** Current time
- **F :** End time of programme
- **G :** Signal level
- **H :** Number of subtitle languages available
- **I :** Teletext service available
- **J :** Dolby or Dolby + audio output information
- **K :** Audio description available
- **L :** Multiaudio available
- **M :** Programme resolution
- **N :** Programme broadcast in HD
- **O :** Parental Guidance
- **P :** Favourite list

Note	
	The availability and accuracy of the programme information depend on the channel broadcaster.

Detailed programme information

If you want more information on the current and following programme, press twice while watching a programme to display the extended information banner.

Press ◀ / ▶ to view information on the next/current programme.

Use ▲ and ▼ to see information on the current/next programme on other channels.

To switch to the selected channel, press OK.

Press again or to hide the extended information banner.

Selecting a Radio channel

Press to switch to RADIO mode. You can also access it by pressing M and selecting RADIO CHANNELS LIST.

Use ▲ and ▼ to select a radio channel.

To switch to the selected channel, press OK.

Press again or to exit the RADIO mode and switch back to TV mode.

Adjusting the audio volume

Volume: Use **VOL+** and **VOL-** to turn the volume up and down.

Mute mode: Use to turn the sound off. Press the same key again to turn the sound back on.

Note	
	These operations do not affect the sound on the Scart socket if you set it to Recorder mode (see **Picture settings**, page 36).

Changing the favourites list

You can create and manage favourite channels lists in the FAVOURITE LISTS menu (see page 34).

To switch from one channel list (main channel list included) to an existing favourite list, press i twice to display the detailed information banner.

Press the **blue** D key to switch to the next available favourite list.

Repeat this operation until the favourite list of your choice is selected, or to return to the main channel list.

Temporarily selecting audio languages and subtitles

Note
All modifications take place immediately. However, temporary adjustments are not retained when you change channel.

While watching a programme, press i once to display the programme information banner. Press OK to display the options banner.

You can also display the audio tracks, subtitles or audio description screen by pressing ⊟.

Use ◀, ▶, ▲ or ▼ to select your settings then press OK to confirm.

Activating and Using Audio description

If you want to use the Audio description feature, activate it first in your User Settings (see **Setting your language options**, page 31). Programmes providing this service will be broadcast in the selected audio preferred language if available.

You can then use AD to temporarily deactivate the audio description feature, change the language and adjust the audio description volume. **Please note** that the AD key will only respond if the audio description is activated in the User settings.

Teletext and interactive services

Whenever Teletext or interactive services are available (news, local weather information, etc.), an invitation to press the red key appears on screen.

You can then press or the **red** key on your remote control to access available services.

You can then browse the services, teletext pages and local information available following the onscreen indications.

Temporarily selecting display formats

Note	
	All modifications take place immediately. However, temporary adjustments are not retained when you change channel. This feature is only available if you connected the recorder to an HD TV set via the HDMI connector.

Press the key to toggle between the display formats available for the programme you are watching:4/3, 14/9 zoom, 16/9 zoom or Full screen.

Electronic programme guide

The electronic programme guide displays programme information for all available channels (depending on the information provided by channel broadcasters). You can also record programmes directly from the electronic programme guide (see **Recording programmes from the Electronic programme guide**, page 26).

Press to access the electronic programme guide. You can also access it by pressing M and selecting ELECTRONIC PROGRAM GUIDE.

The electronic guide shows programme information on all available channels.

You can PIN-lock access to adult genre using the parental control feature (see **Recorder Locking and Parental control options**, page 33).

To toggle between the **Grid** and **List** display modes, use the **red** A key.

To help you navigate in the electronic programme guide, a vertical line shows the current time.

You can perform the following actions:

- To select a channel/programme, use the ◀, ▶, ▲ or ▼ keys. You can also directly enter the channel number on the remote control.
- To see extended information on a programme, highlight it and press i.
- To zap to a selected channel, select it and press OK.
- To jump to the next/previous day, press the ⏮ / ⏭ key.
- To record a programme that is currently broadcast, select it and press the ● key (see **Recording programmes from the Electronic programme guide**, page 26 for more information on this feature). To schedule the recording of a future programme, select it and press the **green** B key (see **Recording programmes from the Electronic programme guide**, page 26 for more information on this feature).
- To see programme information for a specific genre on all available channels, press the **blue** D key and select the genre you are interested in (*ex : news*).
- You can also search for a specific programme based on its genre or its title. To access this search feature, press the **yellow** C key.

You can at any time go back to the current programme and channel information by pressing the ↩ key.

To exit the electronic programme guide, press the ✕ key.

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Live mode/Deferred mode

The recorder automatically saves the previous minutes of the channel that is watched (last 60 to 120 minutes depending on the signal characteristics).

This sliding recording mode makes it possible to stop live mode, rewind and review the programme that was recorded moments before.

Press , , and to enter the time shift recording.

A banner with the Deferred/Live time shift is displayed on the screen.

Pause / Play

You can pause a programme without missing what's next by pressing the key. To resume the current programme where you left it, press the key.

Rewind

You can rewind by pressing the key.

You will then see the Deferred/Live delay increase. By pressing the key several times, you can increase the rewind speed (up to 300 times the normal speed).

Therefore, it is possible to rewind 1 or 2 hours. Please note that to do so, the current programme must have been watched for that period of time at least.

Fast forward

You can fast forward by pressing the key.

You will then see the Deferred/Live delay decrease. By pressing the key several times, you can increase the fast forward speed (up to 300 times the normal speed).

If you remain in fast forward, you will finish by reaching the live programme.

Stop

You can exit the Deferred mode at any time and go back to the live programme.

To do so, press the key.

7. Video Recordings

The recording capacity of your recorder depends on the selected programme. On average, one hour of recording requires from 1 GB (SD programme) to 2.5 GB (HD programme) of hard disk space.

You can simultaneously:

- record a programme and watch another programme,
- record 2 programmes and watch any of them.

In the same way, you can simultaneously:

- watch a programme in deferred mode while recording another programme,
- watch a recorded programme and record one or 2 programmes.

Please note if MHEG services are available on the programme you are recording, they will be discarded.

Immediate recording (Live or Deferred programme)

To record a live programme, select the desired channel and press .

The name of the channel channel being recorded is displayed on the screen.

The recorder will by default record the programme until its announced end time.

You can then change channel without the recording being affected.

To stop a recording, press the key.

In the same way, if you decide to record a programme that you have been watching for a certain time (1 to 2 hours maximum), enter the deferred mode using , , and , then press when you want to start recording.

Note	
	You can then put the recorder in standby: the recording will stop automatically at the end of the recording time.
	When recording in deferred mode, the recorder can add a few seconds of video at the beginning.
	Once a recording is launched, you can no longer rewind before the start time.

Recording programmes from the menu

Press the M key to access the main menu. Once you are in the main menu, select RECORDING TIMERS.

The event timer screen shows the list of your scheduled recordings.

There are two types of recordings:

- recording scheduled from the EPG (the last column displays the programme name)
- recordings that you schedule manually (the last column displays the 'Timer' mention)

Scheduling a recording manually

To manually schedule a recording:

1. Select a blank **New** line and press OK.
   An edition screen appears allowing you to select your recording options.
2. Select the channel you want to record.
3. Select the recording repetition:
   - **Single**: only once at the scheduled time.
   - **Weekly**: once a week at the scheduled time.
   - **Daily (Mon-Fri)**: at the scheduled time, every day from Monday to Friday.
   - **Daily (Mon-Sat)**: at the scheduled time, every day from Monday to Saturday.
   - **Daily (Mon-Sun)**: at the scheduled time, every day and every week.
4. Enter the recording date.
5. Enter the recording start and end time.
6. If you want to PIN-lock access to the recording from the recording list, set LOCKING to YES. Locked recordings are hidden in the Recording list (see **Accessing Locked Recordings**, page 27).
7. Confirm the schedule by pressing OK.

Editing scheduled recordings

To modify an existing scheduled recording, just select it in the list and press OK: the edition screen then appears allowing you to modify the recording options. Please note that changing the repetition cannot be undone.

Note	
	Editing a recording scheduled from the EPG is possible, but by doing so, you will lose all automatic information update (automatic reschedule, series recording, etc...). We recommend that you delete instead the event in the Recording Timer list and reschedule the recording from the EPG.

Recording programmes from the Electronic programme guide

The advantage of recording from the electronic programme guide is that you can record specific programmes instead of choosing channel time slots. You can only do this if the programme information is provided by the channel broadcaster.

By default, the recorder records a programme based on its announced time. To avoid missing parts of the programme, you can customise timers margins in your User Preferences (see **Setting your User Preferences**, page 32).

Press to access the electronic programme guide.

1. Select the channel and programme you want to record.
2. Press to schedule the recording of the selected programme.
   The programme cell (grid mode) or name (list mode) become red.
3. Repeat the operation for all the programmes you want to record.
   - If a recording is conflicting with another recording (scheduled at the same time), the recorder will ask you to resolve the schedule conflict.
   - If the programme you want to record is part of a series (symbolised by a multipage icon above the programme start time), the recorder will ask if you want to record the single episode or all announced forthcoming episodes.
4. To cancel the recording of a programme, press again.

The scheduled recordings appear in the Timer list, as 'Once' or 'Series' depending on your repetition choice.

Please note that if you edit a recording that has been scheduled from the EPG, you will lose all automatic information update made available by the EPG (automatic reschedule, series recording, etc...).

Recording List

Press the key to access the recording list. You can also access it by pressing M and selecting RECORDING LIST.

You will be able to create folders to organise your recordings, and control the disk space available.

The left panel displays the existing folders, and the programmes you recorded (locked recordings excluded).

Highlight a recording using the navigation arrows, then press OK to play it.

Depending on the genre of the recorded programme, you may be asked to enter the parental PIN-code before you can play it.

In Play mode:

- Use , and to move in the recorded programme.
- Press to stop and return to the list.

To exit this menu, press .

Accessing Locked Recordings

If you want to access the complete list of recordings, and view therefore the recordings you PIN-locked, press the **yellow** key. You will be asked to enter the parental PIN-code before you can view them.

Press the **yellow** key again to switch back to the restricted list of recordings.

Managing the Recording list

The coloured keys let you manage the recording list and offer you the following actions:

- **red** A: select an operation
- **green** B: select the highlighted recording
- **blue** D: sort the recordings by date or name

Selecting recorded programmes

You can work with several recordings at the same time. To handle several files simultaneously, it is preferable to select them beforehand.

To select several recordings:

- Highlight one recording.
- Press the **green** B key, a 'check mark' symbol appears next to the recording.
- Perform the same action to select other recordings.
- Once all the desired recording are selected, press the **red** A key to access the recording management menu.

Note

The operations described in this section apply to recordings and folders.

Sorting your recordings

Press the **blue** D key to sort your recordings by date or name.

Creating folders

You can create folders to organise your recordings.

- Press the **red** A key.
- Select the action "New folder" and press OK.
- Use ◀ to delete the default name, then enter the desired name using the numeric keypad on the remote control.

Note

All folders created will be saved at the root of the hard disk. You can not create a folder in a folder.

Use alphanumeric characters (letters and numbers) when naming folders. Do not use special characters. Accepted signs are ".", "_" and "-".

- Press OK to confirm the creation.

Erasing recordings

- Select the recording(s) or folder(s) you want to erase with the **green** B key.
- Press the **red** A key.
- Select the action "Delete" and press OK.
  A warning message appears for each item to erase.
- Press OK to confirm.

Moving recordings

- Select with the **green** B key the recording(s) you want to move.
- Press the **red** A key.
- Select the action "Move" and press OK.
- Use ▲ and ▼ to select the new location then press OK.

Renaming recordings

- Select with the **green** B key the recording or folder you want to rename.
- Press the **red** A key.
- Select the action "Rename" and press OK.

- Use ◀ to delete the existing name, then enter the desired name using the numeric keypad on the remote control.

Note

Use alphanumeric characters (letters and numbers) when naming folders. Do not use special characters. Accepted signs are ".", "_" and "-".

- Press OK to confirm.

Merging recordings

You can merge two recordings to create one single recording.

- Select the first recording and press the **green** B key.
- Select the second recording and press the **green** B key.
- Press the **red** A key.
- Select the action "Merge 2 records" and press OK.
  A confirmation message appears onscreen.
- Select YES and press OK to confirm.

The merged recording will carry the title of the second recording.

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8. Installation menus

To move around the screens and change various settings, just use the keys ▲, ▼, ◀ and ▶ to highlight your selections, press OK to confirm, and ✕ to leave a screen.

Icons

Recording timers	Recording list	Favourite lists	Electronic Programme Guide
User settings	**Receiver settings**	**Information**	**Radio Channels list**

User settings

To access the user settings screen, press M. Once you are in the main menu, select USER SETTINGS.

Setting your language options

In USER SETTINGS, select LANGUAGE SETTINGS.

Select the menu language, audio language and subtitle language you want.

Programmes will be broadcast in the selected audio language, provided it is available. Your choice of subtitle language will be applied if available.

You can also activate the audio description and subtitles for the deaf and hard of hearing features. Programmes providing these services will be broadcast in the selected audio main language if available, and in the selected subtitle main language if available.

Setting your User Preferences

In USER SETTINGS, select USER PREFERENCES.

Display preferences

- **Banner time-out**: You can set how long you want the zapping and information banners to stay onscreen.
- **Volume bar time-out**: You can set how long you want the volume bar to stay onscreen when you turn the volume up, down, or mute it.
- **User Country**: Initially defined during the first installation, it is used to give you access to programmes and service available in your geographical location. To change the country, you will need to reset the default settings and reconfigure your recorder (see **Resetting the recorder**, page 37). Some services or channels may become unavailable.
- **Network monitoring**: By activating this feature, you will be automatically informed when any new channel or service become available.

Recording preferences

By default, the recorder records programmes based on their announced time. This recording mode is identified as PROGRAMME type.

You can programme recording margins which will be automatically added to the recordings carried out via the electronic programme guide. You can thus set the recorder so that it starts to record a programme before its announced start time, and stops after its announced end time. To activate this feature, just set the recording type to TIMER, and select the desired starting and ending times (0,1,2,5, 10 or 15 minutes).

Note

In TIMER mode, the series recording function is not available.

Sleep Timer

You can set the recorder to automatically switch to standby mode at a specific time. If you activate this feature, set the desired SLEEP TIME in 24H format.

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Recorder Locking and Parental control options

In USER SETTINGS, select LOCKING.

Recorder locking

You can lock access to the recorder. If you activate the recorder lock, you will need to enter the parental code every time you switch the recorder on, or want to access the recorder menus (Recorder settings, Channels, etc.).

Channel locking

You can lock access to specific channels. If you activate the channel lock, you will need to enter the parental code every time you switch to a locked channel.

To set the list of channels you want to lock, select **Channels to lock** and press OK. You can then select/unselect the channels of your choice by pressing OK.

Hiding Adult channels

This feature lets you hide adult genre channels. If you activate this feature, all adult genre channels will be hidden: you will not be able to switch to an adult genre channel, or browse this category in the electronic programme guide.

Use this feature to protect your children from this type of exposure.

Changing your Parental code

In USER SETTINGS, select CHANGE PARENTAL CODE.

The parental code is initially defined during the first installation, and is used to lock access to the recorder and channels.

To change your parental code, enter the current four-digit code using the remote control.

Then enter your new parental code and confirm it (0000 is not accepted).

Creating and Managing favourite lists

To access the favourites settings screen, press M. Once you are in the main menu, select FAVOURITE LISTS.

To create a favourite list, press the **yellow** C key to select an empty list (list A to D).

Select the type of lists you want to create: TV or Radio list.

An edition screen appears.

Highlight a channel in the All channels list and press the **blue** D key to add it into your favourite list.

To remove a channel from the favourite list, use the **red** A key.

To move a channel within the favourite list, use the **green** B key.

To save your favourite list, press the **yellow** C key.

To edit or empty a list of favourite channels, select it and carry out the desired modifications.

Recorder settings

To access the recorder settings screen, press M. Once in the main menu, select RECEIVER SETTINGS.

If the recorder lock is activated, enter your parental code (to change your parental code, see **Changing your Parental code**, page 33).

Searching for channels

This menu lets you search for all available FREEVIEW channels and update the channel list.

In RECEIVER SETTINGS, select AUTOMATIC CHANNEL SEARCH.

Press OK to launch the channel search.

A bar shows you the search progress.

Once the search is complete, select YES and press OK to save the channel list.

Searching manually for channels

This menu lets you manually search for a specific channel, on a specific frequency or with a specific modulation.

In RECEIVER SETTINGS, select MANUAL CHANNEL SEARCH.

Set your search criteria: enter a channel number (21 to 69), a frequency, or select a modulation.

Press OK to launch the channel search.

Picture settings

In RECEIVER SETTINGS, select VIDEO SETTINGS.

Check the manuals of your video equipment to know what settings you need.

- **HDMI Output**: If your HD TV set is connected to the recorder with an HDMI cable, select YES. If you have a standard TV set, select NO.
- **HD RESOLUTION**: select the output resolution for your HD TV set (1080i, 720p or 576p).
- **TV Format**: select the display mode for your standard TV set: 16/9 (widescreen TV), 4/3 (Traditional TV) or Auto (programme format will be respected - 16:9 or 4:3).
- **Video resizing**: if your standard TV format is 4/3, select the desired resizing mode: Pan & Scan or Letterbox.
- **SCART**: If you connected your standard TV set to the recorder with a Scart cable, select TV mode. If instead, you connected a DVD recorder to the Scart connector, select the RECORDER mode. In TV mode, audio volume changes and onscreen messages will be sent to the TV set. In Recorder mode, none of these operations are sent to the external recording device so that they do not affect your recordings.
- **Video Standard**: select the video standard (PAL or S-Video) best suited for the TV/AUX output.

Audio settings

In RECEIVER SETTINGS, select AUDIO SETTINGS.

Check the manuals of your audio equipment to know what settings you need.

If you have connected your recorder to a home theatre cinema via the Digital audio connector, set DIGITAL AUDIO OUTPUT to MULTICHANNEL. Otherwise, leave it to STEREO.

If the audio volume varies noticeably between programmes because of the audio type broadcast (Stereo, multichannel, etc.), adjust the volume (default value is 0 decibel) using ◀ and ▶.

If the sound and picture are not synchronized, adjust the AUDIO/VIDEO DELAY setting (default value is 0 millisecond) using ◀ and ▶.

These settings will apply to all programmes watched on all channels.

Resetting the recorder

Note

If you reset the default settings, you lose the channels and settings you made.

This operation does not erase the recordings saved in the recording list.

In RECEIVER SETTINGS, select RESET FACTORY DEFAULT.

Enter your parental code and press OK.

A warning message appears.

To cancel the operation, press or .

To confirm the reset, press OK.

Once the default settings are restored, the recorder installation screen is displayed. You can then reconfigure your recorder (see **First installation**, page 16).

Information Menu

The information contained in this menu may be requested if you contact your supplier or another technical service.

You will find here important information about the recorder, the hard disk drive and the embedded software.

To access the recorder technical information, press M. In the main menu, select INFORMATION.

Antenna Signal Information

In INFORMATION, select ANTENNA SIGNAL INFORMATION.

This menu lets you find out the signal level and quality of your antenna, for the currently watched programme.

If you use an active antenna with an amplifier and if you want the recorder to supply it with power (5V power voltage -50mA max.), set Antenna power supply by DTR to YES. Otherwise, set it to NO.

Recorder Information

In INFORMATION, select PRODUCT DATA.

This menu provides information on the recorder software and hardware.

Hard disk drive Information

In INFORMATION, select HARD DISK.

This menu provides information on the hard disk.

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9. Troubleshooting

Using the recorder

Symptom	Action
The remote control is not working.	• Point the remote control at the recorder. • Check the battery life and check the batteries are inserted properly.
The recorder display shows no information (no time, no channel number, etc.).	• Switch the recorder on by pressing the On/Off button. • Check all the connections (see **Connections**, page 12).
The recorder displays - -: - - in standby mode.	• Take the recorder out of standby mode by pressing the key. • Check that the antenna signal is correctly detected (see **Antenna Signal Information**, page 38).
The recorder displays a black screen or an error message.	• Check that the antenna signal is correctly detected (see **Antenna Signal Information**, page 38). • Search for programmes (see **Searching for channels**, page 35).
The picture is frozen ./ unclear.	• Check all the connections, check the antenna and search for programmes again (see **Searching for channels**, page 35).
The recorder cannot find any channels.	• Check the antenna reception (see **Antenna Signal Information**, page 38). • Search for programmes (see **Searching for channels**, page 35). • Contact your antenna installer/dealer for more information on your antenna installation.
The TV set does not switch to the recorder when it leaves standby mode.	• Check that your TV set is correctly connected to your recorder (see **Connection to the TV set**, page 13). • Select the appropriate input on your TV set.
There is no sound in HOME CINEMA mode on some channels.	• Check that the recorder is connected to a Home Theatre amplifier with a digital link (see **Connection to a home theatre system**, page 15).
Black and white video on TV/AUX output (during VCR/DVD recording).	• Check that the signal type chosen for TV/AUX SCART output is compatible with your VCR (select PAL on VCR, see **Picture settings**, page 36).
I cannot channel-surf between all my channels during a double recording.	• In the case of a double simultaneous recording, you can only channel-surf between a restricted number of channels. You will be able to channel-surf between all your channels again when at least one of the recordings ends.
A black screen (no video) appears at the end of a recording.	• Some channels stop their broadcast with a fixed image or no video. When a recording ends on such programmes, the video recording stops but the time counter continues until the end of the scheduled recording time. Make sure that you set your manual recordings with the correct end time.
For any other problem.	• Perform a default factory reset (see **Resetting the recorder**, page 37).

Updating the software

The recorder automatically downloads 'over the air' new software and services when they become available.

If a problem is encountered during the download, the recorder displays on its front panel an error code.

Error code	Meaning/Action
Er00	The software currently in the recorder is identical to the software available. Recorder updating is therefore not necessary.
Er02	• The signal quality does not enable the software to be correctly acquired. Press the **OK** key to continue the process. • Check the signal strength and quality (see **Antenna Signal Information**, page 38).
Er05	
Er10	
Er11	

For any other error messages, contact our customer services team on 08450 900 316.

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10. Customer Support

At Sagemcom we believe that a high quality product should come with the highest quality customer service.

In the design of this product we have taken great care to ensure the maximum quality possible and are sure that you will be delighted with your purchase.

However, in the rare event that you have any problems with the product and need advice or support you can be confident that we will do our best to help you.

Our dedicated technical helpdesk can be contacted from 09:00 – 17:00, Monday to Friday and will offer expert guidance on your product.

In the event of any trouble, please do not hesitate to call them on:

08450 900 316

11. Guarantee Terms

ATTENTION

In order to apply the guarantee, you should contact your retailer or Sagemcom helpdesk at 08450 900 316.
Proof of purchase will be required. Should any malfunctioning arise, the retailer or Sagemcom helpdesk will advise you what to do.

If you bought your equipment from Sagem Communications SAS directly, the following shall apply:

1) Sagem Communications SAS undertakes to remedy by repair, free of charge for labour and replacement parts, any defects in the equipment during a period of twelve (12) months from the date of original delivery of the equipment, where those defects are a result of faulty workmanship.

During this twelve-month guarantee period, the defective equipment will be repaired free of charge; the customer must however return the defective equipment in its original package with all accessories at his/her own expense, to the address given by Sagem Communications SAS After Sales Department, the phone number of which can be found on the delivery slip. Unless the customer has concluded with Sagem Communications SAS a maintenance contract for the equipment which specifically provides for repairs to be carried out at the customer's residence, the repairs will not be carried out on the equipment at the customer's residence.

The following sentence applies to purchases of equipment for the customer's trade, business or profession.

Except as otherwise expressly provided in this Document and to the extent permitted by law, Sagem Communications SAS makes no representations or warranties, express or implied, statuette or otherwise, and to such extent, all terms and conditions implied by law are hereby excluded.

This guarantee does not affect the Customer's statutory rights.

2) **Exclusions from Guarantee**

Sagem Communications SAS shall have no liability under the guarantee in respect of:

- damage, defects breakdown or malfunction due to:
  - failure to properly follow the installation process and instructions for use, or
  - an external cause to the equipment (including but not limited to, lightning, fire, shock or water damage of any nature), or
  - modifications made without the written approval of Sagem Communications SAS, or
  - a failure or neglect to maintain the equipment or inappropriate maintenance, or
  - unsuitable operating conditions, particularly of temperature and humidity, or
  - repair or maintenance of the equipment by persons not authorised by Sagem Communications SAS,
- the removal and/or destruction of the label positioned on the fixation screw of the lower plastic cover,
- wear and tear from normal daily use of the equipment and its accessories,
- damage due to insufficient or bad packaging of equipment when returned to Sagem Communications SAS,
- supply of new versions of software,
- work on any equipment or software modified or added without the prior written consent of Sagemcom SAS,

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- malfunctions not resulting from the Equipment or from software installed in user workstations for the purpose of use of the equipment,
- communication problems related to an unsuitable environment, including:
  - problems related to access and/or connection to the Internet such as interruptions by access networks or malfunction of the line used by the subscriber or his correspondent,
  - transmission faults (for example poor geographical coverage by radio transmitters, interference or poor line quality),
  - the local network fault (wiring, servers, workstations) or the failure of the transmission network,
- the normal servicing (as defined in the user guide supplied with the equipment) as well as malfunctioning due to servicing not being carried out, servicing costs are in any event always borne by the customer.

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12. Specifications

DUAL DVB-T/T2 FRONT END

RF INPUT

2 RF tuners (w. internal splitter)

Input frequency range: UHF470-862 (8MHz bandwidth)

Input signal level: -90 to -20 dBm

Input impedance: 75 Ohms unbalanced

Tuning step 166,66kHz

DVB-T DEMODULATOR

Transmission mode: FFT 2k & 8k, MFN and SFN network supported

Constellation: QPSK, 16-QAM & 64-QAM

Guard interval: 1/4, 1/8, 1/16 & 1/32

Mode: Non hierarchical

Code rate: 1/2, 2/3, 3/4, 5/6 & 7/8

Outer decoder: Reed Salomon (204, 188, 8)

DVB-T2 DEMODULATOR

Transmission mode: FFT 1K, 2k, 4K, 8k, 8K EXT,16K, 16K EXT, 32K & 32K EXT
MFN and SFN network supported

Constellation: QPSK, 16-QAM, 64-QAM & 256-QAM

Guard interval: 1/4, 19/128, 1/8, 19/256, 1/16, 1/32 & 1/128

Single and multiple-PLPs

LDPC Code rate: 1/2, 3/5, 2/3, 3/4, 4/5 & 5/6

Outer decoder: BCH

DATA PORT

ETHERNET 10/100BT

Fully integrated IEEE 802.3/802.3u 10/100 base T-Physical layer

Auto-negotiation 10/100, Full/Half Duplex

Adaptive equaliser, Baseline wander correction

USB

Host USB 2.0 High speed (480 Mbits/s)

PROCESSOR AND MEMORIES

Processor: STi7105 - 800MIPS

RAM memory 256 Mbytes

Flash memory 32 Mbytes

EEPROM emulated into Flash

2½" HARD DISK DRIVE

Capacity: 320 GB

Interface S-ATA

Noise under operation (typ.): <30dBA

VIDEO DECODING

MPEG2

Standard MPEG-2 MP@HL for 50 Hz

Input rates (max): 15 Mbit/s

MPEG-4 Part 10 / H.264

MPEG-4 AVC HP@L4 (HD) for 50 Hz

Input rates (max): 20 Mbit/s for HP@L4

MPEG-4 AVC HP@L3 (SD) for 50 Hz

Input rates (max): 10 Mbit/s for HP@L3

CABAC and CAVLC decoding

Supports all intra/inter prediction modes and block sizes

I,P and B picture types

Fidelity range extensions (8x8 Transforms, 8x8 Spatial Prediction Mode, Dynamic Quantization Matrix)

AUDIO DECODING

Stereo 2.0

MPEG-1 layer I & II (Musicam)

MPEG-2 layer II

AAC

Mode: Mono, stereo, joint stereo

Sampling rates 32, 44.1 or 48 KHz

Multicanal 5.1

DOLBY Digital

Mode : pass through and down mixing

DOLBY Digital+

Mode : pass through, transcoding Dolby Digital, and down mixing

OUTPUT RESOLUTION FORMAT

For HD broadcast

1280x720 @ 50 Hz (progressive)

1920x1080 @ 25 Hz (interlaced)

Unscaled (original format) or scaled

576i and 720p by set up menu

Zoom function on HDMI: 4/3, 14/9 zoom, 16/9 zoom and Full screen

For SD broadcast

720x576 @ 50 Hz interlaced

Unscaled (original format) or scaled

720p and 1080i by set up menu

Zoom function on HDMI: 4/3, 14/9 zoom, 16/9 zoom and Full screen

Format function on TV SCART

4/3 and 16/9 with conversion Pan and Scan, Letter box

SD INPUT/OUTPUT

SCART (TV setup configuration)

RGB out, PAL in/out, volume control Audio R/L, Fast blanking out, Slow blanking out

SCART (Recorder setup configuration)

RGB in, PAL out , S-video out, fixed volume Audio R/L, Slow blanking in

HDMI OUTPUT

HDMI 1.3 and HDCP 1.1

VIDEO: YCrCb

AUDIO

- 2 channels PCM in case of MPEG1-layer II
- 2 channels PCM in case of HEAAC
- Dolby Digital or PCM in case of Dolby Digital beat stream(*)
- Dolby Digital Plus, Dolby Digital or PCM in case of Dolby Digital Plus beat stream (*)

(*) according of E(EDID) information

AUDIO OUTPUT

HiFi audio output

Adjustable audio level

- Mono/stereo in case of MPEG1 layer II,
- Two channnels down mixed in case of Dolby Digital, Dolby Digital Plus, HEAAC audio stream

Coax S/PDIF

Stereo audio setup:

Fixed audio level -20 dBLKFS

- Two channels PCM in case of MPEG1-layer II stream,
- Two channels PCM downmix in case of Dolby Digital / Dolby Digital Plus/HEAAC streams

Multicanal audio set up:

Fixed audio level -31 dBLKFS

- Two channels PCM in case of MPEG1-layer II stream,
- Originally received bit stream in case of Dolby Digital
- Transcoded Dolby Digital in case of Dolby Digital Plus

FRONT PANEL

4 digits 7 segments blue color display
IR sensor: 38 KHz
1 x bicolour led
3 x buttons: On/Off, P+, P-
1 x USB 2.0 (Type A Host)

REAR PANEL

1 x RF input (IEC169-24-F)
1 x RF output (IEC169-24-M)
1 x RJ45 (ETH 10/100BT)
1 x TV SCART (IEC60807-9)
2 x RCA (Stereo L/R)
1 x RCA (S/PDIF)
1 x HDMI with HDCP

POWER SUPPLY

Mains supply voltage 220-240 V ~50 Hz
External AC/DC adaptor
Power (IEC 62087 Ed2): 25W
Standby consumption: < 2W

PHYSICAL SPECIFICATIONS

Recorder:

- Size (wxdxh): 260x160x48 mm
- Weight: ~0.8 Kg
- Operating temperature: 0°C to +40°
- Storage temperature: -25°C to +65°C

ACCESSORIES

1 x EU Power cable
1 x Remote control (range: 10.5m/33 feet)
2 x Saline AAA-R03 batteries
1 x HDMI cord
1 x User manual

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Memo

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